Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1639MLS

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	4	OCT 28	KOREAPAT now available on STN
NEWS	5	NOV 30	PHAR reloaded with additional data
NEWS	6	DEC 01	LISA now available on STN
NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	18	FEB 10	STN Patent Forums to be held in March 2005
NEWS	19	FEB 16	STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005
NEWS	20	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	21	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	22	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	23	MAR 02	GBFULL: New full-text patent database on STN

NEWS EXPRESS JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:36:12 ON 02 MAR 2005

=> fil medline biosis caplus embase wpids

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'MEDLINE' ENTERED AT 10:36:31 ON 02 MAR 2005

FILE 'BIOSIS' ENTERED AT 10:36:31 ON 02 MAR 2005
Copyright (c) 2005 The Thomson Corporation

FILE 'CAPLUS' ENTERED AT 10:36:31 ON 02 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 10:36:31 ON 02 MAR 2005
COPYRIGHT (C) 2005 Elsevier Inc. All rights reserved.

FILE 'WPIDS' ENTERED AT 10:36:31 ON 02 MAR 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

=> (subtract? (5n) cDNA) and ((?sera or ?serum) (5n) (absorb? or absorption)
UNMATCHED LEFT PARENTHESIS 'AND ((?SERA'
The number of right parentheses in a query must be equal to the number of left parentheses.

=> (subtract? (5n) cDNA) and ((?sera or ?serum) (5n) (absorb? or absorption))
3 FILES SEARCHED...
L1 1 (SUBTRACT? (5N) CDNA) AND ((?SERA OR ?SERUM) (5N) (ABSORB? OR ABSORPTION))

=> d ibib abs l1

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:146136 CAPLUS
DOCUMENT NUMBER: 137:58201
TITLE: Vascular proteomics and subtractive antibody expression cloning
AUTHOR(S): Shusta, Eric V.; Boado, Ruben J.; Pardridge, William M.
CORPORATE SOURCE: Department of Medicine, UCLA School of Medicine, Los Angeles, CA, 90024, USA
SOURCE: Molecular and Cellular Proteomics (2002), 1(1), 75-82
CODEN: MCPOBS; ISSN: 1535-9476
PUBLISHER: American Society for Biochemistry and Molecular Biology, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The cloning of genes expressing proteins that are differentially expressed in the organ microvasculature has the potential to address a variety of problems ranging from the anal. of disease pathogenesis to drug targeting for particular tissues. This study describes a methodol. designed to

analyze differential protein expression in the brain microvasculature. The method can be applied to other organs and is particularly suited to the cloning of cDNAs encoding membrane proteins. The technol. merges a tissue-specific polyclonal antiserum with a cDNA library expression cloning system. The tissue-specific antiserum is subtracted with protein exts. from control tissues to remove those antibodies that recognize common antigenic proteins. Then, the depleted antiserum is used to expression clone tissue-specific proteins from a cDNA library expressed in mammalian cells. The methodol. was evaluated with a rabbit polyclonal antiserum prepared against purified bovine brain capillaries. The **antiserum** was **absorbed** with acetone powders of liver and kidney and then used to screen a bovine brain capillary cDNA library in COS cells. The initial clone detected with this expression methodol. was the Lutheran membrane glycoprotein, which is specifically expressed at the brain microvasculature compared with liver and kidney tissues. This subtractive expression cloning methodol. provides a new approach to "vascular proteomics" and to the detection of proteins specifically expressed at the microvasculature, including membrane proteins.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	23.69	23.90

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.73	-0.73

FILE 'STNGUIDE' ENTERED AT 10:41:32 ON 02 MAR 2005

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb 25, 2005 (20050225/UP).

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.30	24.20

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-0.73

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 10:44:33 ON 02 MAR 2005

```
Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:SSSPTA1639MLS

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * * *
SESSION RESUMED IN FILE 'STNGUIDE' AT 10:58:52 ON 02 MAR 2005
FILE 'STNGUIDE' ENTERED AT 10:58:52 ON 02 MAR 2005
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.30      24.20

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                       0.00      -0.73

=> fil medline biosis caplus embase wpids
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.36      24.26

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                         ENTRY    SESSION
CA SUBSCRIBER PRICE                                       0.00      -0.73

FILE 'MEDLINE' ENTERED AT 10:59:23 ON 02 MAR 2005

FILE 'BIOSIS' ENTERED AT 10:59:23 ON 02 MAR 2005
Copyright (c) 2005 The Thomson Corporation

FILE 'CAPLUS' ENTERED AT 10:59:23 ON 02 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'EMBASE' ENTERED AT 10:59:23 ON 02 MAR 2005
COPYRIGHT (C) 2005 Elsevier Inc. All rights reserved.

FILE 'WPIDS' ENTERED AT 10:59:23 ON 02 MAR 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

=> e hillman jeffrey?
E1            2     HILLM/BI
E2         1434     HILLMAN/BI
E3            0 --> HILLMAN JEFFREY?/BI
E4            1     HILLMANADDUCTS/BI
E5            3     HILLMANI/BI
E6            8     HILLMANII/BI
E7           48     HILLMANN/BI
E8            1     HILLMANNII/BI
E9            1     HILLMANS/BI
E10           1     HILLMARK/BI
E11           1     HILLMED/BI
```

```
E12          3     HILLMEIER/BI

=> e hillman jeffrey?/au
E1           5     HILLMAN JEFFREY DANIEL/AU
E2           2     HILLMAN JEFFREY S/AU
E3           0 --> HILLMAN JEFFREY?/AU
E4           1     HILLMAN JEFFRY STEWART/AU
E5           3     HILLMAN JENNIFER/AU
E6           3     HILLMAN JENNIFER J/AU
E7         541     HILLMAN JENNIFER L/AU
E8           3     HILLMAN JENNIFER M L/AU
E9           1     HILLMAN JENNY LEIGH/AU
E10          1     HILLMAN JL/AU
E11          4     HILLMAN JOE/AU
E12          1     HILLMAN JOHN/AU

=> e1
L2           5 "HILLMAN JEFFREY DANIEL"/AU

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3            5 DUP REM L2 (0 DUPLICATES REMOVED)

=> t ti l3 1-5

L3   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Identification of Actinobacillus actinomycetemcomitans antigens for use in
     the diagnosis, treatment, and monitoring of periodontal diseases

L3   ANSWER 2 OF 5  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Methods for identification of genes expressed during Xanthomonas
     campestris infection or colonization of bean plants using in situ induced
     antigen technology (ISIAT) and application to detection of microbial
     infection of animals

L3   ANSWER 3 OF 5  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Actinobacillus actinomycetemcomitans antigens for use in the diagnosis,
     treatment, and monitoring of periodontal diseases

L3   ANSWER 4 OF 5  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Phage display library-based identification of in vivo induced antigen from
     microbial infected animals for diagnostic and vaccination uses

L3   ANSWER 5 OF 5  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Mutacin 1140, an antimicrobial lantibiotic isolated from Streptococcus
     mutans, related genes and derivs., and pharmaceutical and dentifrice
     application thereof


=> d ibib abs l3 1-5

L3   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:452948  CAPLUS
DOCUMENT NUMBER:          141:22194
TITLE:                    Identification of Actinobacillus actinomycetemcomitans
                          antigens for use in the diagnosis, treatment, and
                          monitoring of periodontal diseases
INVENTOR(S):              Handfield, Martin; Hillman, Jeffrey Daniel;
                          Progulske-Fox, Ann
PATENT ASSIGNEE(S):       University of Florida, USA
SOURCE:                   PCT Int. Appl., 253 pp.
                          CODEN: PIXXD2
```

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004045499	A2	20040603	WO 2003-US32645	20031015
WO 2004045499	A3	20041223		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-37235 A 20021120

AB Antibodies, polypeptides, and polynucleotides are provided for the detection, prevention, amelioration and treatment of diseases caused by Actinobacillus actinomycetemcomitans.

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:697005 CAPLUS
DOCUMENT NUMBER: 139:225443
TITLE: Methods for identification of genes expressed during Xanthomonas campestris infection or colonization of bean plants using in situ induced antigen technology (ISIAT) and application to detection of microbial infection of animals
INVENTOR(S): **Hillman, Jeffrey Daniel**
PATENT ASSIGNEE(S): Ivigene Corporation, USA
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003072718	A2	20030904	WO 2003-US5253	20030224

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-358778P P 20020222

AB This invention involves in situ induced antigen technol. (ISIAT) for identification of genes expressed during Xanthomonas campestris infection or colonization in bean plants. The invention provides compns. and methods for identifying polynucleotides and polypeptides expressed by a microbe during infection or colonization. The invention also provides compns. and methods for identifying polynucleotides and polypeptides expressed by a host organism in response to a disease state. The

invention also provides methods and compns. for the diagnosis, treatment, prevention, and amelioration of diseases and infections caused by microbes in animals and other organisms.

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:656508 CAPLUS
DOCUMENT NUMBER: 139:212902
TITLE: Actinobacillus actinomycetemcomitans antigens for use in the diagnosis, treatment, and monitoring of periodontal diseases
INVENTOR(S): Handfield, Martin; **Hillman, Jeffrey Daniel**; Progulske-Fox, Ann
PATENT ASSIGNEE(S): University of Florida, USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068146	A2	20030821	WO 2002-US37235	20021120

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-995493 A 20011128
AB Antibodies, polypeptides, and polynucleotides are provided for the detection, prevention, amelioration and treatment of diseases caused by Actinobacillus actinomycetemcomitans.

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:978385 CAPLUS
DOCUMENT NUMBER: 138:50816
TITLE: Phage display library-based identification of in vivo induced antigen from microbial infected animals for diagnostic and vaccination uses
INVENTOR(S): **Hillman, Jeffrey Daniel**
PATENT ASSIGNEE(S): Ivigene Corp., USA
SOURCE: U.S. Pat. Appl. Publ., 34 pp., Cont.-in-part of U.S. Ser. No. 980,845.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002197625	A1	20021226	US 2002-92243	20020306
WO 2001011081	A2	20010215	WO 2000-US21340	20000804
WO 2001011081	A3	20020711		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,

LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

WO 2003076662 A1 20030918 WO 2003-US6768 20030305
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-147551P P 19990806
WO 2000-US21340 W 20000804
US 2001-980845 A2 20011206
US 2002-92243 A1 20020306

AB The invention provides methods useful for identifying polynucleotides expressed in vivo by a microbe during infection of a host. Antibodies against antigens that are expressed by the microbe in vivo and in vitro are adsorbed with cells or cellular exts. of the microbe that have been grown in vitro. Unadsorbed antibodies are isolated and are probed against an expression library of the microbe's DNA. A polynucleotide of the microbe that is expressed in vivo is isolated and identified. The the effectiveness of IVIAT is demonstrated by identifying Actinobacillus Actinomycetemcomitans (Aa) antigens from localized juvenile periodontitis (LJP) patients. Serum samples are obtained from LJP patients and adsorbed with cultured cells and lysates of Aa strain HK1651 to remove antibodies reactive with antigens made during in vitro growth. The resulting adsorbed serum, still containing antibodies reactive with immunogenic proteins produced by the pathogen only during in vivo growth, is used to probe an expression library of Aa genome in Escherichia coli strain BL21(DE3). Reactive clones are isolated, and the cloned insert is sequenced. For independent verification, the isolated clone is overexpressed, and the resulting recombinant protein is purified and used to raise monospecific antibodies to probe biol. samples taken from patients infected with the pathogen. These types of in vivo induced polynucleotides may well represent entirely novel virulence factors of Aa which can be used for diagnostic and vaccination purposes.

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:696643 CAPLUS
DOCUMENT NUMBER: 137:226584
TITLE: Mutacin 1140, an antimicrobial lantibiotic isolated from Streptococcus mutans, related genes and derivs., and pharmaceutical and dentifrice application thereof
INVENTOR(S): **Hillman, Jeffrey Daniel**
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U.S. 6,391,285.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 2002128186	A1	20020912	US 2001-13036		20011030
US 5932469	A	19990803	US 1997-871924		19970610
US 6391285	B1	20020521	US 1999-361900		19990727
US 6475771	B1	20021105	US 2002-97777		20020313
US 2002177690	A1	20021128			
US 2003118590	A1	20030626	US 2002-234788		20020904
PRIORITY APPLN. INFO.:			US 1997-871924	A3	19970610
			US 1999-361900	A2	19990727
			US 2002-97777	A3	20020313

AB Antimicrobial compds. and compns. and uses thereof, including the treatment and prevention of bacterial infections are described. The compds. and compns. include lantibiotic polypeptides and the nucleic acid sequences encoding the polypeptides. In particular, a lantibiotic called mutacin 1140 is purified from the culture medium Streptococcus mutans spontaneous strain JH1140 to homogeneity using HPLC (C18 column) and 5 to 60 % acetonitrile gradient. The purified peptide is shown to have antimicrobial activity against a wide spectrum of Gram pos. bacteria. The detailed structure of mutacin 1140 is obtained through traditional selective (ethanethiol) chemical modification, mass spectrometry, and Edman sequencing. Two genes, designated lanA and lanB, has been isolated from S. mutans to be responsible for the above lantibiotic production from genetic anal. Furthermore, various derivs. of mutacin 1140 are also claimed. The compds. and compns. are useful as antimicrobials in antibiotic pharmaceutical preparation and as an antimicrobial or antiseptic dentifrice.

```
=> e au=hillman jeffrey?
E1            1     AU9SH/BI
E2            1     AU9TOMATICALLY/BI
E3            0 --> AU=HILLMAN JEFFREY?/BI
E4         1560     AUA/BI
E5          118     AUA1/BI
E6            5     AUA2/BI
E7            1     AUA2CL/BI
E8            1     AUA2S/BI
E9            8     AUA3/BI
E10           6     AUA4/BI
E11           1     AUA6/BI
E12           3     AUA6665/BI

=> e progulske-fox?/au
E1           65     PROGULSKE FOX ANN/AU
E2            1     PROGULSKE FOX ANNE/AU
E3            0 --> PROGULSKE-FOX?/AU
E4            1     PROGULSKEFOX A/AU
E5            1     PROGULSKI FOX A/AU
E6            2     PROGULSKI FOX ANN/AU
E7            1     PROGULSKI J/AU
E8            1     PROGULSKIE DONALD R JR/AU
E9            1     PROGUNKOV V/AU
E10          12     PROGUNKOV V V/AU
E11           1     PROGUNOV M V/AU
E12           1     PROGUNOV V P/AU

=> e1 or e2
L4           66 "PROGULSKE FOX ANN"/AU OR "PROGULSKE FOX ANNE"/AU

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5           40 DUP REM L4 (26 DUPLICATES REMOVED)

=> t ti l5 1-40
```

L5 ANSWER 1 OF 40 MEDLINE on STN
TI Dentinal tubule disinfection using three calcium hydroxide formulations.

L5 ANSWER 2 OF 40 MEDLINE on STN
TI Human Atherosclerotic Plaque Contains Viable Invasive Actinobacillus actinomycetemcomitans and Porphyromonas gingivalis.

L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Vibrio cholerae proteins expressed during infection

L5 ANSWER 4 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Identification of Actinobacillus actinomycetemcomitans antigens for use in the diagnosis, treatment, and monitoring of periodontal diseases

L5 ANSWER 5 OF 40 MEDLINE on STN DUPLICATE 1
TI In vivo induced antigenic determinants of Actinobacillus actinomycetemcomitans.

L5 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Actinobacillus actinomycetemcomitans antigens for use in the diagnosis, treatment, and monitoring of periodontal diseases

L5 ANSWER 7 OF 40 MEDLINE on STN DUPLICATE 2
TI Use of in vivo-induced antigen technology (IVIAT) to identify genes uniquely expressed during human infection with Vibrio cholerae.

L5 ANSWER 8 OF 40 MEDLINE on STN DUPLICATE 3
TI Characterization and pathogenic significance of Vibrio vulnificus antigens preferentially expressed in septicemic patients.

L5 ANSWER 9 OF 40 MEDLINE on STN DUPLICATE 4
TI Identification of Candida albicans genes induced during thrush offers insight into pathogenesis.

L5 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods and compositions using Porphyromonas gingivalis protease and hemagglutinin polypeptides for prevention of angioproliferation

L5 ANSWER 11 OF 40 MEDLINE on STN DUPLICATE 5
TI Identification and testing of Porphyromonas gingivalis virulence genes with a pPGIVET system.

L5 ANSWER 12 OF 40 MEDLINE on STN DUPLICATE 6
TI Bacterial interactions with the autophagic pathway.

L5 ANSWER 13 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method of in vivo induced antigen technology (IVIAT) to identify microbial antigens from infected animals for diagnostic and vaccination uses

L5 ANSWER 14 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 7
TI Porphyromonas gingivalis traffics to autophagosomes in human coronary artery endothelial cells.

L5 ANSWER 15 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 8
TI Identification of lysine decarboxylase as a mammalian cell growth inhibitor in Eikenella corrodens: Possible role in periodontal disease.

L5 ANSWER 16 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 9

TI Long-term immunological memory induced by recombinant oral Salmonella vaccine vectors.

L5 ANSWER 17 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 10
TI Expression and immunogenicity of hemagglutinin A from Porphyromonas gingivalis in an avirulent Salmonella enterica serovar typhimurium vaccine strain.

L5 ANSWER 18 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI IVIAT: A novel method to identify microbial genes expressed specifically during human infections.

L5 ANSWER 19 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Invasion of endothelial and epithelial cells by strains of Porphyromonas gingivalis.

L5 ANSWER 20 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 11
TI Invasion of human coronary artery cells by periodontal pathogens.

L5 ANSWER 21 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Porphyromonas gingivalis virulence factors and invasion of cells of the cardiovascular system.

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Cloned Porphyromonas gingivalis hemagglutinin genes and probes for the detection of periodontal disease

L5 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Cloned Porphyromonas gingivalis genes and probes for the detection of periodontal disease

L5 ANSWER 24 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 12
TI Invasion of human oral epithelial cells by Prevotella intermedia.

L5 ANSWER 25 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 13
TI The hemagglutinin genes hagB and hagC of Porphyromonas gingivalis are transcribed in vivo as shown by use of a new expression vector.

L5 ANSWER 26 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 14
TI The hemagglutinin gene A (hagA) of Porphyromonas gingivalis 381 contains four large, contiguous, direct repeats.

L5 ANSWER 27 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 15
TI Analysis of the prtP gene encoding porphypain, a cysteine proteinase of Porphyromonas gingivalis.

L5 ANSWER 28 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 16
TI Construction and preliminary characterization of three hemagglutinin mutants of Porphyromonas gingivalis.

L5 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Expression and immunogenicity of a cloned Porphyromonas gingivalis

hemagglutinin in Salmonella typhimurium

L5 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Systemic and mucosal immune responses in mice orally immunized with avirulent Salmonella typhimurium expressing a cloned Porphyromonas gingivalis hemagglutinin

L5 ANSWER 31 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Molecular biology.

L5 ANSWER 32 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 17
TI Sequencing of a tet(Q) gene isolated from Bacteroides fragilis 1126.

L5 ANSWER 33 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 18
TI Sequence divergence in two tandemly located pilin genes of Eikenella corrodens.

L5 ANSWER 34 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 19
TI Isolation and characterization of a cloned Porphyromonas gingivalis hemagglutinin from an avirulent strain of Salmonella typhimurium.

L5 ANSWER 35 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 20
TI Cloning and sequencing of two type 4 (N-methylphenylalanine) pilin genes from Eikenella corrodens.

L5 ANSWER 36 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 21
TI Cloning, characterization and sequencing of two haemagglutinin genes from Eikenella corrodens.

L5 ANSWER 37 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 22
TI Development of a genetic system for Eikenella corrodens: Transfer of plasmids pFM7329 and pLES2.

L5 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Identification and sequence analysis of a methylase gene in Porphyromonas gingivalis

L5 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Construction and characterization of isogenic mutants of Streptococcus mutans deficient in major surface protein antigen P1 (I/II)

L5 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
TI Molecular cloning and expression of a Streptococcus mutans major surface protein antigen, P1 (I/II), in Escherichia coli

=> d ibib abs l5 1-40

L5 ANSWER 1 OF 40 MEDLINE on STN
ACCESSION NUMBER: 2005050637 IN-PROCESS
DOCUMENT NUMBER: PubMed ID: 15614007
TITLE: Dentinal tubule disinfection using three calcium hydroxide formulations.
AUTHOR: Cwikla Stephen J; Belanger Myriam; Giguere Steeve; **Progulske-Fox Ann**; Vertucci Frank J

CORPORATE SOURCE: Center for Molecular Microbiology, Department of Oral Biology, College of Dentistry, University of Florida, Gainesville, Florida 32610-0424, USA.
SOURCE: Journal of endodontics, (2005 Jan) 31 (1) 50-2. Journal code: 7511484. ISSN: 0099-2399.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: NONMEDLINE; IN-PROCESS; NONINDEXED; Dental Journals
ENTRY DATE: Entered STN: 20050202
Last Updated on STN: 20050202

AB The objective of this study was to determine the antibacterial efficacy of three calcium hydroxide (CH) formulations using an in vitro model of Enterococcus faecalis dentinal tubule infection. CH mixed with water (CH), CH mixed with iodine-potassium iodide (CH+IKI), and CH mixed with iodoform and silicone oil (Metapex) were tested. Human cylindrical dentin specimens infected with E. faecalis were filled with disinfectants and incubated for 1 week. Dentin powder samples collected with ISO 018 burs showed a statistically significant reduction in E. faecalis for all three experimental groups in comparison with untreated control specimens. Statistically significant differences were also found between the three experimental groups. Metapex was the most effective dentinal tubule disinfectant, followed by CH+IKI and then CH. Similar results were observed at greater dentin tubule depths (ISO 021 burs) with the exception that intracanal treatment with CH resulted in significantly higher numbers of E. faecalis in comparison with untreated control specimens.

L5 ANSWER 2 OF 40 MEDLINE on STN
ACCESSION NUMBER: 2005100101 IN-PROCESS
DOCUMENT NUMBER: PubMed ID: 15662025
TITLE: Human Atherosclerotic Plaque Contains Viable Invasive Actinobacillus actinomycetemcomitans and Porphyromonas gingivalis.
AUTHOR: Kozarov Emil V; Dorn Brian R; Shelburne Charles E; Dunn William A Jr; **Progulske-Fox Ann** .
SOURCE: Arteriosclerosis, thrombosis, and vascular biology, (2005 Mar) 25 (3) e17-8. Electronic Publication: 2005-01-20 Journal code: 9505803. ISSN: 1524-4636.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED; Priority Journals
ENTRY DATE: Entered STN: 20050301
Last Updated on STN: 20050301

L5 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:934506 CAPLUS
DOCUMENT NUMBER: 141:389908
TITLE: Vibrio cholerae proteins expressed during infection
INVENTOR(S): Calderwood, Stephen B.; Hang, Long; John, Manohar; Ryan, Edward T.; **Progulske-Fox, Ann**; Handfield, Martin; Hillman, Jeffrey D.; Asaduzzaman, Muhammad
PATENT ASSIGNEE(S): The General Hospital Corporation, USA; University of Florida Research Foundation, Inc.; Ivigene Corporation
SOURCE: PCT Int. Appl., 95 pp. CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004094644	A2	20041104	WO 2004-US11817	20040416

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-463819P P 20030417

AB Disclosed are compns. comprising in vivo expressed polynucleotides of V. cholerae. Also disclosed are methods of using such polynucleotides and the corresponding expression products to treat V. cholerae infection.

L5 ANSWER 4 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:452948 CAPLUS
DOCUMENT NUMBER: 141:22194
TITLE: Identification of Actinobacillus actinomycetemcomitans antigens for use in the diagnosis, treatment, and monitoring of periodontal diseases
INVENTOR(S): Handfield, Martin; Hillman, Jeffrey Daniel; **Progulske-Fox, Ann**
PATENT ASSIGNEE(S): University of Florida, USA
SOURCE: PCT Int. Appl., 253 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004045499	A2	20040603	WO 2003-US32645	20031015
WO 2004045499	A3	20041223		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-37235 A 20021120

AB Antibodies, polypeptides, and polynucleotides are provided for the detection, prevention, amelioration and treatment of diseases caused by Actinobacillus actinomycetemcomitans.

L5 ANSWER 5 OF 40 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER: 2004364772 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15268943
TITLE: In vivo induced antigenic determinants of Actinobacillus actinomycetemcomitans.
AUTHOR: Cao Sam Linsen; **Progulske-Fox Ann**; Hillman Jeffrey D; Handfield Martin

CORPORATE SOURCE: Center for Molecular Microbiology and Department of Oral Biology, University of Florida College of Dentistry, P.O. Box 100424, 1600 SW Archer Road, Gainesville, FL 32610, USA.
CONTRACT NUMBER: DE11857 (NIDCR)
DE13523 (NIDCR)
SOURCE: FEMS microbiology letters, (2004 Aug 1) 237 (1) 97-103. Journal code: 7705721. ISSN: 0378-1097.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200502
ENTRY DATE: Entered STN: 20040723
Last Updated on STN: 20050216
Entered Medline: 20050215

AB Actinobacillus actinomycetemcomitans is a Gram-negative capnophilic rod and the etiological agent of localized aggressive periodontitis. The genome-wide survey of A. actinomycetemcomitans using in vivo induced antigen technology (IVIAT) has previously resulted in the discovery of antigenic determinants expressed specifically in diseased patients. The present study evaluated the potential of these antigens as putative disease markers, and investigating their contribution to the pathogenesis of the microorganism. Sera from patients had a significantly greater antibody titer than sera from healthy controls against six antigens, which supports the in vivo expression of these antigens, and suggests their usefulness as disease markers. A. actinomycetemcomitans invasion of epithelium-derived HeLa cells resulted in the induction of all three genes tested, as evidenced by real-time PCR. Isogenic mutants of these three genes were constructed and the adhesion and intracellular survival of the mutants was assayed in a competition assay with the wild-type strain. A significant defect in the intracellular survival of two of these mutant strains (orf1402 and orf859) was found. This defect could not be attributed to an adhesion defect. In contrast, a mutation in vapA, a homologue of a novel putative transcriptional regulator, out-competed the wild-type strain in the same assay. The virulent phenotype was restored for a mutant strain in orf859 upon complementation. This data provided new insight into the pathogenic personality of A. actinomycetemcomitans in vivo and supported the use of HeLa cells as a valid in vitro host-pathogen interactions model for that microorganism. IVIAT is applicable to most pathogens and will undoubtedly lead to the discovery of novel therapies, antibiotics and diagnostic tools.

L5 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:656508 CAPLUS
DOCUMENT NUMBER: 139:212902
TITLE: Actinobacillus actinomycetemcomitans antigens for use in the diagnosis, treatment, and monitoring of periodontal diseases
INVENTOR(S): Handfield, Martin; Hillman, Jeffrey Daniel; **Progulske-Fox, Ann**
PATENT ASSIGNEE(S): University of Florida, USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068146	A2	20030821	WO 2002-US37235	20021120

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-995493 A 20011128

AB Antibodies, polypeptides, and polynucleotides are provided for the detection, prevention, amelioration and treatment of diseases caused by Actinobacillus actinomycetemcomitans.

L5 ANSWER 7 OF 40 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 2003322004 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12826608

TITLE: Use of in vivo-induced antigen technology (IVIAT) to identify genes uniquely expressed during human infection with Vibrio cholerae.

AUTHOR: Hang Long; John Manohar; Asaduzzaman Muhammad; Bridges Emily Anna; Vanderspurt Cecily; Kirn Thomas J; Taylor Ronald K; Hillman Jeffrey D; **Progulske-Fox Ann**; Handfield Martin; Ryan Edward T; Calderwood Stephen B

CORPORATE SOURCE: Division of Infectious Diseases, Massachusetts General Hospital, Boston, MA 02114, USA.

CONTRACT NUMBER: D43 TW05572 (FIC)
R01 AI25096 (NIAID)
R01 AI40725 (NIAID)
R01 AI44487 (NIAID)
R01 DE13523 (NIDCR)
UO1 HD39165 (NICHD)

SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (2003 Jul 8) 100 (14) 8508-13. Electronic Publication: 2003-06-25. Journal code: 7505876. ISSN: 0027-8424.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200309

ENTRY DATE: Entered STN: 20030710
Last Updated on STN: 20030905
Entered Medline: 20030904

AB In vivo-induced antigen technology is a method to identify proteins expressed by pathogenic bacteria during human infection. Sera from 10 patients convalescing from cholera infection in Bangladesh were pooled, adsorbed against in vitro-grown El Tor Vibrio cholerae O1, and used to probe a genomic expression library in Escherichia coli constructed from El Tor V. cholerae O1 strain N16961. We identified 38 positive clones in the screen, encoding pili (PilA and TcpA), cell membrane proteins (PilQ, MshO, MshP, and CapK), methyl-accepting chemotaxis proteins, chemotaxis and motility proteins (CheA and CheR), a quorum-sensing protein (LuxP), and four hypothetical proteins. Analysis of immune responses to purified PilA and TcpA in individual patients demonstrated that the majority seroconverted to these proteins, confirming results with pooled sera. These results suggest that PilA and its outer membrane secretin, PilQ, are expressed during human infection and may be involved in colonization of the gastrointestinal tract. These results also demonstrate substantial immune responses to TcpA in patients infected with El Tor V. cholerae O1. In vivo-induced antigen technology provides a simple method for

identifying microbial proteins expressed during human infection, but not during in vitro growth.

L5 ANSWER 8 OF 40 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2003464413 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14500463
TITLE: Characterization and pathogenic significance of Vibrio vulnificus antigens preferentially expressed in septicemic patients.
AUTHOR: Kim Young Ran; Lee Shee Eun; Kim Choon Mee; Kim Soo Young; Shin Eun Kyoung; Shin Dong Hyeon; Chung Sun Sik; Choy Hyon E; **Progulske-Fox Ann**; Hillman Jeffrey D; Handfield Martin; Rhee Joon Haeng
CORPORATE SOURCE: National Research Laboratory of Molecular Microbial Pathogenesis, Institute of Vibrio Infection, Genome Research Center for Enteropathogenic Bacteria, Chonnam National University Medical School, 5 Hak-Dong, Dong-Ku, Kwangju 501-746, South Korea.
SOURCE: Infection and immunity, (2003 Oct) 71 (10) 5461-71. Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AE016795; GENBANK-AE016796
ENTRY MONTH: 200311
ENTRY DATE: Entered STN: 20031008
Last Updated on STN: 20031104
Entered Medline: 20031103

AB Many important virulence genes of pathogenic bacteria are preferentially expressed in vivo. We used the recently developed in vivo-induced antigen technology (IVIAT) to identify Vibrio vulnificus genes induced in vivo. An expression library of V. vulnificus was screened by colony blot analysis by using pooled convalescent-phase serum that had been thoroughly adsorbed with in vitro-expressed V. vulnificus whole cells and lysates. Twelve clones were selected, and the sequences of the insert DNAs were analyzed. The DNA sequences showed homologies with genes encoding proteins of diverse functions: these functions included chemotaxis (a methyl-accepting chemotaxis protein), signaling (a GGDEF-containing protein and a putative serine/threonine kinase), biosynthesis and metabolism (PyrH, PurH, and IlvC), secretion (TatB and plasmid Achromobacter secretion [PAS] factor), transcriptional activation (IlvY and HlyU), and the activity of a putative lipoprotein (YaeC). In addition, one identified open reading frame encoded a hypothetical protein. Isogenic mutants of the 12 in vivo-expressed (ive) genes were constructed and tested for cytotoxicity. Cytotoxic activity of the mutant strains, as measured by lactate dehydrogenase release from HeLa cells, was nearly abolished in pyrH, purH, and hlyU mutants. The intraperitoneal 50% lethal dose in mice increased by ca. 10- to 50-fold in these three mutants. PyrH and PurH seem to be essential for in vivo growth. HlyU appears to be one of the master regulators of in vivo virulence expression. The successful identification of ive genes responsible for the in vivo bacterial virulence, as done in the present study, demonstrates the usefulness of IVIAT for the detection of new virulence genes.

L5 ANSWER 9 OF 40 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 2003302509 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12787355
TITLE: Identification of Candida albicans genes induced during thrush offers insight into pathogenesis.
AUTHOR: Cheng Shaoji; Clancy Cornelius J; Checkley Mary Ann;

Handfield Martin; Hillman Jeffrey D; **Progulske-Fox Ann**; Lewin Alfred S; Fidel Paul L; Nguyen M Hong

CORPORATE SOURCE: Department of Medicine, University of Florida College of Medicine, Gainesville 32610, USA.

CONTRACT NUMBER: 1K08AI101758-01 (NIAID)
R01-DE13523 (NIDCR)
R01-DE13980 (NIDCR)
SOURCE: Molecular microbiology, (2003 Jun) 48 (5) 1275-88.
Journal code: 8712028. ISSN: 0950-382X.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200312
ENTRY DATE: Entered STN: 20030701
Last Updated on STN: 20031218
Entered Medline: 20031209

AB Candida albicans causes a wide spectrum of diseases, ranging from mucocutaneous infections like oral thrush to disseminated candidiasis. Screening for C. albicans genes expressed within infected hosts might advance understanding of candidal pathogenesis, but is impractical using existing techniques. In this study, we used an antibody-based strategy to identify C. albicans genes expressed during thrush. We adsorbed sera from HIV-infected patients with thrush against candidal cells grown in vitro and screened a C. albicans genomic expression library. We identified 10 genes encoding immunogenic antigens and used reverse transcription-polymerase chain reaction to verify that they were induced within thrush pseudomembranes recovered from a patient. The in vivo induced genes are involved in diverse functions, including regulation of yeast-hyphal morphogenesis, adhesion to host cells, nutrient uptake, phospholipid biosynthesis and amino acid catabolism. Four genes encode known virulence determinants (HWP1, CST20, CPP1 and RBF1). Another gene, LPD1, for which a role in candidal pathogenesis is unknown, encodes a protein homologous to a bacterial virulence determinant. Most importantly, disruption of CaNOT5, a newly identified gene, conferred defects in morphogenesis, decreased adherence to human buccal epithelial cells and attenuated mortality during murine disseminated candidiasis, proving that our strategy can identify genes encoding novel virulence determinants.

L5 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:868761 CAPLUS
DOCUMENT NUMBER: 137:346194

TITLE: Methods and compositions using Porphyromonas gingivalis protease and hemagglutinin polypeptides for prevention of angioproliferation

INVENTOR(S): Kozarov, Emil V.; **Progulske-Fox, Ann**

PATENT ASSIGNEE(S): University of Florida, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002089833	A2	20021114	WO 2002-US13590	20020502

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,

UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002192206	A1	20021219	US 2001-849115	20010505
US 2005019318	A1	20050127	US 2004-477007	20040730
PRIORITY APPLN. INFO.:			US 2001-849115	A2 20010505
			WO 2002-US13590	W 20020502

AB The invention provides pharmaceutical compns. comprising Porphyromonas gingivalis protease and hemagglutinin polypeptides that have anti-angiogenic activity, as well as and methods for their use.

L5 ANSWER 11 OF 40 MEDLINE on STN DUPLICATE 5

ACCESSION NUMBER: 2002070576 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11796628
TITLE: Identification and testing of Porphyromonas gingivalis virulence genes with a pPGIVET system.
AUTHOR: Wu Yi; Lee Seok-Woo; Hillman Jeffrey D; **Progulske-Fox Ann**
CORPORATE SOURCE: Department of Oral Biology, College of Dentistry, University of Florida, Gainesville, Florida 32610, USA.
CONTRACT NUMBER: DE04529 (NIDCR)
DE07496 (NIDCR)
SOURCE: Infection and immunity, (2002 Feb) 70 (2) 928-37.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200202
ENTRY DATE: Entered STN: 20020125
Last Updated on STN: 20020222
Entered Medline: 20020221

AB An in vivo expression technology (IVET) system was designed to identify previously unknown virulence genes of Porphyromonas gingivalis. Fourteen ivi (for in vivo induced) genes that are induced during infection in a mouse abscess model were identified in our study. Of these, seven had homology to genes in the NCBI database, and the rest had no homology to reported DNA sequences. In order to determine virulence-related properties of these genes, three mutant strains, deleted of ivi8 (no homology to genes in the database), ivi10 (homologous to a putative TonB-dependent outer membrane receptor protein), and ivi11 (an immunoreactive 33-kDa antigen PG125 in P. gingivalis), were created. The mutants were tested in a mouse abscess model for alterations in virulence relative to the wild type by a competition assay in BALB/c mice. After 5 days we observed the enrichment of the wild-type strain over mutant strains Deltaivi10 and Deltaivi11, which indicated that mutant strains Deltaivi10 and Deltaivi11 are less able to survive in this model than the wild-type strain, while Deltaivi8 survives as well as the wild-type strain. We propose that knockout of these ivi genes reduced the ability of the mutated P. gingivalis to survive and cause infection compared to the wild-type strain at the site of injection. Also, in separate experiments, groups of mice were challenged with subcutaneous injections of each individual mutant strain (Deltaivi8, Deltaivi10, and Deltaivi11) or with the wild-type strain alone and were then examined to assess their general health status. The results showed that knockout of these ivi genes conferred a reduction in virulence. The ability of the mutants to invade KB cells compared to the wild type was also determined. Interestingly, the CFU counts of the mutant strain Deltaivi10 recovered from KB cells were eight times lower than those of the wild type, indicating that this mutant has a lower capacity for invasion. These

results demonstrate that IVET is a powerful tool in discovering virulence genes and the significant role that ivi genes play in the pathogenesis of this species.

L5 ANSWER 12 OF 40 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2002121029 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11856168
TITLE: Bacterial interactions with the autophagic pathway.
AUTHOR: Dorn Brian R; Dunn William A Jr; **Progulske-Fox Ann**
CORPORATE SOURCE: Center for Molecular Microbiology, Department of Oral Biology, College of Dentistry, University of Florida, Gainesville 32610, USA.
SOURCE: Cellular microbiology, (2002 Jan) 4 (1) 1-10. Ref: 77
Journal code: 100883691. ISSN: 1462-5814.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 20020222
Last Updated on STN: 20020531
Entered Medline: 20020530

AB Bacteria have evolved a variety of mechanisms to invade eukaryotic cells and survive intracellularly. Once inside, bacterial pathogens often modulate their phagosome to establish an intracellular niche for survival and replication. A subset of intracellular pathogens, including Brucella abortus, Legionella pneumophila and Porphyromonas gingivalis, are diverted from the endosomal pathway to the auto-phagic pathway. Once within the autophagosome, each in some way presumably modifies this compartment to establish an environment necessary for its survival. Transit into autophagosomes represents an avenue by which to escape host defences. In this review, we examine the biochemical and morphological evidence for the survival of some bacterial pathogens by replicating within an autophagosome-like compartment.

L5 ANSWER 13 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:115326 CAPLUS
DOCUMENT NUMBER: 134:173860
TITLE: Method of in vivo induced antigen technology (IVIAT) to identify microbial antigens from infected animals for diagnostic and vaccination uses
INVENTOR(S): **Progulske-Fox, Ann**; Handfield, Martin; Brady, L. Jeannine; Hillman, Jeffrey D.
PATENT ASSIGNEE(S): Ivigene Corp., USA
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001011081	A2	20010215	WO 2000-US21340	20000804
WO 2001011081	A3	20020711		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,

YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2374156	AA	20010215	CA 2000-2374156	20000804
EP 1238102	A2	20020911	EP 2000-952514	20000804
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
AU 778821	B2	20041223	AU 2000-65197	20000804
NZ 515553	A	20050128	NZ 2000-515553	20000804
US 2002197625	A1	20021226	US 2002-92243	20020306
PRIORITY APPLN. INFO.:			US 1999-147551P P	19990806
			WO 2000-US21340 W	20000804
			US 2001-980845 A2	20011206

AB The invention provides methods useful for identifying polynucleotides expressed in vivo by a microbe during infection of a host. Antibodies against antigens that are expressed by the microbe in vivo and in vitro are adsorbed with cells or cellular exts. of the microbe that have been grown in vitro. Unadsorbed antibodies are isolated and are probed against an expression library of the microbe's DNA. A polynucleotide of the microbe that is expressed in vivo is isolated and identified. The the effectiveness of IVIAT is demonstrated by identifying Actinobacillus Actinomycetemcomitans (Aa) antigens from localized juvenile periodontitis (LJP) patients. Serum samples are obtained from LJP patients and adsorbed with cultured cells and lysates of Aa strain HK1651 to remove antibodies reactive with antigens made during in vitro growth. The resulting adsorbed serum, still containing antibodies reactive with immunogenic proteins produced by the pathogen only during in vivo growth, is used to probe an expression library of Aa genome in Escherichia coli strain BL21(DE3). Reactive clones are isolated, and the cloned insert is sequenced. For independent verification, the isolated clone is overexpressed, and the resulting recombinant protein is purified and used to raise monospecific antibodies to probe biol. samples taken from patients infected with the pathogen. These types of in vivo induced polynucleotides may well represent entirely novel virulence factors of Aa which can be used for diagostic and vaccination purposes.

L5 ANSWER 14 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 7

ACCESSION NUMBER: 2001:443995 BIOSIS
DOCUMENT NUMBER: PREV200100443995
TITLE: Porphyromonas gingivalis traffics to autophagosomes in human coronary artery endothelial cells.
AUTHOR(S): Dorn, Brian R.; Dunn, William A., Jr.; **Progulske-Fox, Ann** [Reprint author]
CORPORATE SOURCE: Department of Oral Biology, University of Florida, Gainesville, FL, 32610-0424, USA
apfox@dental.ufl.edu
SOURCE: Infection and Immunity, (September, 2001) Vol. 69, No. 9, pp. 5698-5708. print.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Sep 2001
Last Updated on STN: 22 Feb 2002

AB Porphyromonas gingivalis is a periodontal pathogen that also localizes to atherosclerotic plaques. Our previous studies demonstrated that P. gingivalis is capable of invading endothelial cells and that intracellular bacteria are contained in vacuoles that resemble autophagosomes. In this study, we have examined the trafficking of P. gingivalis 381 to the autophagic pathway. P. gingivalis 381 internalized by human coronary artery endothelial (HCAE) cells is located within vacuoles morphologically

identical to autophagosomes. The progression of P. gingivalis 381 through intracellular vacuoles was analyzed by immunofluorescence microscopy. Vacuoles containing P. gingivalis colocalize with Rab5 and HsGsa7p early after internalization. At later times, P. gingivalis colocalizes with BiP and then progresses to a vacuole that contains BiP and lysosomal glycoprotein 120. Late endosomal markers and the lysosomal cathepsin L do not colocalize with P. gingivalis 381. The intracellular survival of P. gingivalis 381 decreases over 8 h in HCAE cells pretreated with the autophagy inhibitors 3-methyladenine and wortmannin. In addition, the vacuole containing P. gingivalis 381 lacks BiP but contains cathepsin L in the presence of wortmannin. These results suggest that P. gingivalis 381 evades the endocytic pathway to lysosomes and instead traffics to the autophagosome.

L5 ANSWER 15 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 8

ACCESSION NUMBER: 2001:277351 BIOSIS
DOCUMENT NUMBER: PREV200100277351
TITLE: Identification of lysine decarboxylase as a mammalian cell growth inhibitor in Eikenella corrodens: Possible role in periodontal disease.
AUTHOR(S): Levine, Martin [Reprint author]; **Progulske-Fox, Ann** ; Denslow, Nancy D.; Farmerie, William G.; Smith, Douglas M.; Swearingen, William T.; Miller, Frederick C.; Liang, Zemin; Roe, Bruce A.; Pan, Hua-Qin
CORPORATE SOURCE: Department of Biochemistry and Molecular Biology, University of Oklahoma H.S.C., 940 S. L. Young Blvd, Oklahoma City, OK, 73104, USA
martin-levine@ouhsc.edu
SOURCE: Microbial Pathogenesis, (April, 2001) Vol. 30, No. 4, pp. 179-192. print.
CODEN: MIPAEV. ISSN: 0882-4010.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Jun 2001
Last Updated on STN: 19 Feb 2002

AB The pathogenesis of inflammatory periodontal disease was studied by examining the mechanism of HeLa and HL60 cell growth inhibition by cell-free saline-soluble extracts of Eikenella corrodens and bacterial plaque. Previous studies identified a protein (p80) as causing growth inhibition by E. corrodens extracts. After purification by two-dimensional SDS-PAGE, p80 was digested with protease lysC. Amino acid sequences were obtained and backtranslated for use as PCR primers. A 5840 nucleotide sequence containing a lysine decarboxylase gene was obtained from a Sau3A1 genomic library of E. corrodens DNA. Lysine decarboxylase activity was present at physiologic pH in the E. corrodens extracts containing p80, and also in bacterial plaque. Both extracts caused growth inhibition by depleting lysine from cell culture media through conversion to cadaverine. Adding lysine, or immune goat IgG to a peptide derived from the active site sequence of E. corrodens lysine decarboxylase, retarded lysine depletion and growth inhibition, epsilon-Amino caproic acid specifically enhanced lysine decarboxylase activity at the low lysine concentration in HL60 cell culture media, and also increased the growth inhibition. Thus, lysine decarboxylases such as p80 inhibit growth by removing lysine from mammalian cell culture media. A new role for lysine decarboxylase activity in the microbial aetiology of periodontal disease is discussed.

L5 ANSWER 16 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 9

ACCESSION NUMBER: 2000:347973 BIOSIS
DOCUMENT NUMBER: PREV200000347973

TITLE: Long-term immunological memory induced by recombinant oral Salmonella vaccine vectors.
AUTHOR(S): Kohler, James J.; Pathangey, Latha; Hasona, Adnan; **Progulske-Fox, Ann**; Brown, Thomas A. [Reprint author]
CORPORATE SOURCE: Department of Oral Biology, University of Florida, Gainesville, FL, 32610, USA
SOURCE: Infection and Immunity, (July, 2000) Vol. 68, No. 7, pp. 4370-4373. print.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Aug 2000
Last Updated on STN: 7 Jan 2002

AB We have previously shown that Salmonella enterica serovar Typhimurium expressing the hagB hemagglutinin gene from Porphyromonas gingivalis can induce primary and recall immune responses in serum and secretions in mice; however, the longevity of memory induced by oral Salmonella carriers has not been adequately demonstrated. In this study, we examined the capacity of mice to mount a recall response 52 weeks after primary immunization. Recall responses were seen in serum immunoglobulin G (IgG) and IgA following boosting at week 52, and in most cases, they were equal to or greater than the primary responses. Significant mucosal IgA recall responses in saliva and vaginal wash were also detected following boosting at week 52. In addition, there was a considerable residual response in secretions at week 51, prior to boosting. These results indicate that oral Salmonella vectors can induce long-term memory to recombinant HagB and are particularly effective at inducing long-lasting mucosal responses as well as at inducing the capacity for mucosal recall responses.

L5 ANSWER 17 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 10
ACCESSION NUMBER: 2000:110099 BIOSIS
DOCUMENT NUMBER: PREV200000110099
TITLE: Expression and immunogenicity of hemagglutinin A from Porphyromonas gingivalis in an avirulent Salmonella enterica serovar typhimurium vaccine strain.
AUTHOR(S): Kozarov, Emil [Reprint author]; Miyashita, Naohisa; Burks, Jacob; Cerveny, Karen; Brown, Thomas A.; McArthur, William P.; **Progulske-Fox, Ann**
CORPORATE SOURCE: Department of Oral Biology, University of Florida, Gainesville, FL, 32610-0424, USA
SOURCE: Infection and Immunity, (Feb., 2000) Vol. 68, No. 2, pp. 732-739. print.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Mar 2000
Last Updated on STN: 3 Jan 2002

AB Porphyromonas gingivalis is a major etiologic agent of periodontitis, a chronic inflammatory disease that ultimately results in the loss of the supporting tissues of the teeth. Previous work has demonstrated the usefulness of avirulent Salmonella enterica serovar Typhimurium strains as antigen delivery systems for protective antigens of pathogens that colonize or cross mucosal surfaces. In this study, we constructed and characterized a recombinant S. enterica serovar Typhimurium avirulent vaccine strain which expresses hemagglutinin A and carries no antibiotic resistance markers. HagA, a major virulence-associated surface protein, is a potentially useful immunogen that contains an antigenic epitope which, in humans, elicits an immune response that is protective against subsequent colonization by P. gingivalis. The hagA gene, including its promoter, was cloned into a balanced-lethal Salmonella vector and

transferred to the vaccine strain. Heterologous expression of HagA was demonstrated in both Escherichia coli JM109 and S. enterica serovar Typhimurium vaccine strain chi4072. The HagA epitope was present in its native configuration as determined by immunochemistry and immunoelectron microscopy. Purified recombinant HagA was recognized by sera from mice immunized with the S. enterica serovar Typhimurium vaccine strain. The HagA-specific antigen of the vaccine was also found to be recognized by serum from a periodontal patient. This vaccine strain, which expresses the functional hemagglutinin protein, induces a humoral immune response against HagA and may be useful for developing a protective vaccine against periodontal diseases associated with P. gingivalis.

L5 ANSWER 18 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:441691 BIOSIS
DOCUMENT NUMBER: PREV200000441691
TITLE: IVIAT: A novel method to identify microbial genes expressed specifically during human infections.
AUTHOR(S): Handfield, Martin [Reprint author]; Brady, L. Jeannine [Reprint author]; **Progulske-Fox, Ann** [Reprint author]; Hillman, Jeffrey D. [Reprint author]
CORPORATE SOURCE: Center for Molecular Microbiology and Dept of Oral Biology, College of Dentistry, University of Florida, 1600 SW Archer Rd, Gainesville, FL, 32610-0424, USA
SOURCE: Trends in Microbiology, (July, 2000) Vol. 8, No. 7, pp. 336-339. print.
ISSN: 0966-842X.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Oct 2000
Last Updated on STN: 10 Jan 2002

L5 ANSWER 19 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:337562 BIOSIS
DOCUMENT NUMBER: PREV200000337562
TITLE: Invasion of endothelial and epithelial cells by strains of Porphyromonas gingivalis.
AUTHOR(S): Dorn, Brian R.; Burks, Jacob N.; Seifert, Kyle N.; **Progulske-Fox, Ann** [Reprint author]
CORPORATE SOURCE: Department of Oral Biology, Center for Molecular Microbiology, and Periodontal Disease Research Center College of Dentistry, University of Florida, Gainesville, FL, 32610-0424, USA
SOURCE: FEMS Microbiology Letters, (15 June, 2000) Vol. 187, No. 2, pp. 139-144. print.
CODEN: FMLED7. ISSN: 0378-1097.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Aug 2000
Last Updated on STN: 7 Jan 2002

AB Porphyromonas gingivalis is a periodontal pathogen that may also be involved in the pathogenesis of coronary heart disease. This microorganism has the ability to invade several cell lines. In this study, 26 different strains of P. gingivalis were tested for invasion of human umbilical vein endothelial cells and KB cells, a human oral epidermoid cell line. Abilities to invade both cell lines by an individual strain were similar, and their invasion efficiencies could be assembled into four groups: high, moderate, low and non-invasive. Of the 26 strains, only P. gingivalis AJW4 was non-invasive. Since the fimbriae are implicated as having a key role in invasion by this species, the

presence of fimbriae on strain AJW4 was investigated. Using polymerase chain reaction (PCR), strain AJW4 was found to contain the fimA gene. Sequence analysis revealed it to be type IV according to the typing scheme developed by Amano et al. Further, fimA is transcribed in this strain as demonstrated by reverse transcription PCR and is expressed on the cell surface as visualized by negative staining and electron microscopy. The adherence+invasion of strain AJW4 was 38.7% of the most invasive strain (strain 381). However, the CFU ml-1 of strain AJW4 recovered from within cells was 2.9% of strain 381. Even though strains AJW4 and W50 have the same type IV fimbriae, strain AJW4 is 8.9-fold more adhesive yet is internalized 170-fold less. These data indicate that the invasion efficiency of P. gingivalis is variable among the different strains, and that the expression of FimA is not sufficient for invasion.

L5 ANSWER 20 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 11

ACCESSION NUMBER: 2000:34128 BIOSIS
DOCUMENT NUMBER: PREV200000034128
TITLE: Invasion of human coronary artery cells by periodontal pathogens.
AUTHOR(S): Dorn, Brian R.; Dunn, William A., Jr.; **Progulske-Fox, Ann** [Reprint author]
CORPORATE SOURCE: Department of Oral Biology, University of Florida, Gainesville, FL, 32608, USA
SOURCE: Infection and Immunity, (Nov., 1999) Vol. 67, No. 11, pp. 5792-5798. print.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 19 Jan 2000
Last Updated on STN: 31 Dec 2001

AB There is an emerging paradigm shift from coronary heart disease having a purely hereditary and nutritional causation to possibly having an infectious etiology. Recent epidemiological studies have shown a correlation between periodontal disease and coronary heart disease. However, to date, there is minimal information as to the possible disease mechanisms of this association. It is our hypothesis that invasion of the coronary artery cells by oral bacteria may start and/or exacerbate the inflammatory response in atherosclerosis. Since a few periodontal pathogens have been reported to invade oral epithelial tissues, we tested the ability of three putative periodontal pathogens-Eikenella corrodens, Porphyromonas gingivalis, and Prevotella intermedia-to invade human coronary artery endothelial cells and coronary artery smooth muscle cells. In this study we demonstrate by an antibiotic protection assay and electron microscopy that specific species and strains invade coronary artery cells at a significant level. Actin polymerization and eukaryotic protein synthesis in metabolically active cells were required since the corresponding inhibitors nearly abrogated invasion. Many intracellular P. gingivalis organisms were seen to be present in multimembranous vacuoles resembling autophagosomes by morphological analysis. This is the first report of oral microorganisms invading human primary cell cultures of the vasculature.

L5 ANSWER 21 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:115816 BIOSIS
DOCUMENT NUMBER: PREV200000115816
TITLE: Porphyromonas gingivalis virulence factors and invasion of cells of the cardiovascular system.
AUTHOR(S): **Progulske-Fox, Ann** [Reprint author]; Kozarov, Emil; Dorn, Brian; Dunn, William, Jr.; Burks, Jacob; Wu, Yi
CORPORATE SOURCE: Department of Oral Biology, University of Florida,

Gainesville, FL, 32606, USA
SOURCE: Journal of Periodontal Research, (Oct., 1999) Vol. 34, No. 7, pp. 393-399. print.
CODEN: JPDRAY. ISSN: 0022-3484.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 29 Mar 2000
Last Updated on STN: 3 Jan 2002

AB Our laboratory is interested in the genes and gene products involved in the interactions between Porphyromonas gingivalis (Pg) and the host. These interactions may occur in either the periodontal tissues or other non-oral host tissues such as those of the cardiovascular system. We have previously reported the cloning of several genes encoding hemagglutinins, surface proteins that interact with the host tissues, and are investigating their roles in the disease process. Primary among these is HagA, a very large protein with multiple functional groups that have significant sequence homology to protease genes of this species. Preliminary evidence indicates that an avirulent Salmonella typhimurium strain containing hagA is virulent in mice. These data indicate that HagA may be a key virulence factor of Pg. Additionally, we are investigating the invasion of primary human coronary artery endothelial cells (HCAEC) by Pg because of the recent epidemiological studies indicating a correlation between periodontal disease (PD) and coronary heart disease (CHD). We found that some, but not all, strains of Pg are able to invade these cells. Scanning electron microsopy of the infected HCAEC demonstrated that the invading organisms initially attached to the host cell surface as aggregates and by a "pedestal"-like structure. By transmission electronmicroscopy it could be seen that internalized bacteria were present within multimembranous compartments localized with rough endoplasmic reticulum. In addition, invasion of the HCAEC by Pg resulted in an increase in the degradation of long-lived cellular proteins. These data indicate that Pg are present within autophagosomes and may use components of the autophagic pathway as a means to survive intracellularly. However, Pg presence within autophagosomes in KB cells could not be observed or detected. It is therefore likely that Pg uses different invasive mechanisms for different host cells. This and the role of HagA in invasion is currently being investigated further.

L5 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:715942 CAPLUS
DOCUMENT NUMBER: 129:340542
TITLE: Cloned Porphyromonas gingivalis hemagglutinin genes and probes for the detection of periodontal disease
INVENTOR(S): **Progulske-Fox, Ann**; Tumwasorn, Somying; Lepine, Guylaine; Han, Naiming; Lantz, Marilyn; Patti, Joseph M.
PATENT ASSIGNEE(S): University of Florida, USA; Uab Research Foundation
SOURCE: U.S., 48 pp., Cont.-in-part of U.S. Ser. No. 250,997.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5830710	A	19981103	US 1994-353485	19941209
CA 2206664	AA	19960613	CA 1995-2206664	19951211
WO 9617936	A2	19960613	WO 1995-US16108	19951211
WO 9617936	A3	19960919		

W: AL, AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL,

RO, RU, SG, SI, SK, TJ, TM, TT, UA, UZ, VN
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9645151	A1	19960626	AU 1996-45151	19951211
AU 718047	B2	20000406		
US 5824791	A	19981020	US 1995-570311	19951211
EP 871733	A2	19981021	EP 1995-943754	19951211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
JP 2000511041	T2	20000829	JP 1996-517811	19951211
PRIORITY APPLN. INFO.:			US 1988-241640	B2 19880908
			US 1991-647119	B1 19910125
			US 1994-250997	A2 19940531
			US 1994-353485	A 19941209
			WO 1995-US16108	W 19951211

AB DNA fragments from Porphyromonas gingivalis which express proteins that elicit anti-P. gingivalis immunol. responses are claimed, along with methods for their detection via nucleic acid hybridization. Microorganisms, genetically modified to express P. gingivalis antigens, are provided. Also disclosed are probes, vaccines, and monoclonal antibodies for the detection and prevention of periodontal disease.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:684452 CAPLUS
DOCUMENT NUMBER: 129:311725
TITLE: Cloned Porphyromonas gingivalis genes and probes for the detection of periodontal disease
INVENTOR(S): **Progulske-Fox, Ann**; Tumwasorn, Somying; Lepine, Guylaine; Han, Naiming; Lantz, Marilyn; Patti, Joseph M.
PATENT ASSIGNEE(S): University of Florida, USA; UAB Research Foundation
SOURCE: U.S., 101 pp., Cont.-in-part of U.S. Ser. No. 353,485. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5824791	A	19981020	US 1995-570311	19951211
US 5830710	A	19981103	US 1994-353485	19941209
PRIORITY APPLN. INFO.:			US 1988-241640	B2 19880908
			US 1991-647119	B2 19910125
			US 1994-353485	A2 19941209
			US 1994-250997	A2 19940531

AB DNA fragments from Porphyromonas gingivalis which express proteins that elicit anti-P. gingivalis immunol. responses are described. Microorganisms, genetically modified to express P. gingivalis antigens, are provided. Also disclosed are probes, vaccines, and monoclonal antibodies for the detection and prevention of periodontal disease.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 24 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 12
ACCESSION NUMBER: 1999:37567 BIOSIS
DOCUMENT NUMBER: PREV199900037567
TITLE: Invasion of human oral epithelial cells by Prevotella intermedia.

AUTHOR(S): Dorn, Brian R.; Leung, K.-P.; **Progulske-Fox, Ann** [Reprint author]
CORPORATE SOURCE: Dep. Oral Biol., Univ. Fla., Gainesville, FL 32608, USA
SOURCE: Infection and Immunity, (Dec., 1998) Vol. 66, No. 12, pp. 6054-6057. print.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Feb 1999
Last Updated on STN: 3 Feb 1999

AB Invasion of oral epithelial cells by pathogenic oral bacteria may represent an important virulence factor in the progression of periodontal disease. Here we report that a clinical isolate of Prevotella intermedia, strain 17, was found to invade a human oral epithelial cell line (KB), whereas P. intermedia 27, another clinical isolate, and P. intermedia 25611, the type strain, were not found to invade the cell line. Invasion was quantified by the recovery of viable bacteria following a standard antibiotic protection assay and observed by electron microscopy. Cytochalasin D, cycloheximide, monodansylcadaverine, and low temperature (4degreeC) inhibited the internalization of P. intermedia 17. Antibodies raised against P. intermedia type C fimbriae and against whole cells inhibited invasion, but the anti-type-C-fimbria antibody inhibited invasion to a greater extent than the anti-whole-cell antibody. This work provides evidence that at least one strain of P. intermedia can invade an oral epithelial cell line and that the type C fimbriae and a cytoskeletal rearrangement are required for this invasion.

L5 ANSWER 25 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 13
ACCESSION NUMBER: 1996:537241 BIOSIS
DOCUMENT NUMBER: PREV199699259597
TITLE: The hemagglutinin genes hagB and hagC of Porphyromonas gingivalis are transcribed in vivo as shown by use of a new expression vector.
AUTHOR(S): Lee, Seok-Woo; Hillman, Jeffrey D. [Reprint author]; **Progulske-Fox, Ann**
CORPORATE SOURCE: Dep. Oral Biol., Coll. Dentistry, Univ. Florida, P.O. Box 100424, Gainesville, FL 32610, USA
SOURCE: Infection and Immunity, (1996) Vol. 64, No. 11, pp. 4802-4810.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Dec 1996
Last Updated on STN: 10 Dec 1996

AB The hemagglutinin genes hagB and hagC of Porphyromonas gingivalis, a putative periodontopathic microorganism, have been cloned, sequenced, and characterized. However, the roles of these putative virulence genes have not yet been determined. In this study, an in vivo expression technology vector termed pPGIVET was constructed and used to determine if hagB and hagC were expressed during an infectious process. We constructed pPGIVET as a conjugative suicide plasmid containing a multiple-cloning site (MCS) upstream of two tandem promoterless reporter genes that encode tetracycline resistance (tetA(Q)2) and galactokinase (galK). The promoter and a portion of the open reading frame (ORF) of hagB were inserted into the MCS in both a positive and a negative orientation relative to the reporter genes. These constructs were conjugated into P. gingivalis 381. Southern blot analysis of different transconjugants indicated that Campbell insertions had occurred at the chromosomal hagB locus and also at the hagC locus, which has high (99%) homology to the ORF of hagB. pPGIVET-labeled clones in which the hag promoters were positively oriented relative to the reporter genes expressed tetracycline resistance and

galactokinase activity in vitro and in vivo at significantly higher levels than did the wild-type strain or clones in which the hag promoters were negatively oriented. Expression of tetracycline resistance allowed substantial enrichment of heterodiploids over wild-type cells during a mixed infection in the mouse abscess model. These results indicate that hagB and hagC are transcriptionally active in vivo and suggested that pPGIVET may be used to isolate P. gingivalis genes expressed only during an infectious process.

L5 ANSWER 26 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 14

ACCESSION NUMBER: 1996:508100 BIOSIS
DOCUMENT NUMBER: PREV199699230456
TITLE: The hemagglutinin gene A (hagA) of Porphyromonas gingivalis 381 contains four large, contiguous, direct repeats.
AUTHOR(S): Han, Naiming [Reprint author]; Whitlock, Joan; **Progulske-Fox, Ann**
CORPORATE SOURCE: Dep. Oral Biol., Box 100424, Univ. Florida, Gainesville, FL 32610-0424, USA
SOURCE: Infection and Immunity, (1996) Vol. 64, No. 10, pp. 4000-4007.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 14 Nov 1996
Last Updated on STN: 14 Nov 1996

AB Porphyromonas gingivalis is a gram-negative anaerobic bacterial species strongly associated with adult periodontitis. One of its distinguishing characteristics and putative virulence properties is the ability to agglutinate erythrocytes. We have previously reported the cloning of multiple hemagglutinin genes from P. gingivalis 381. Subsequent sequencing of clone ST 2 revealed that the cloned fragment contained only an internal portion of the gene which lacked both start and stop codons. We here report the cloning and sequencing of the entire gene, designated hagA, as well as its relationship to other genes of this species. By use of inverse PCR technology and the construction of several additional genomic libraries, the complete open reading frame of hagA was found to be 7,887 bp in length, encoding a protein of 2,628 amino acids with a molecular mass of 283.3 kDa, which is among the largest genes ever cloned from a prokaryote to date. Within its open reading frame, four large, contiguous, direct repeats (varying from 1,318 to 1,368 bp) were identified. The repeat unit (HArep), which is assumed to contain the hemagglutinin domain, is also present in other recently reported protease and hemagglutinin genes in P. gingivalis. Thus, we propose that hag.4 and the other genes which share the HArep sequence form a multigene family with hagA as a central member.

L5 ANSWER 27 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 15

ACCESSION NUMBER: 1996:315922 BIOSIS
DOCUMENT NUMBER: PREV199699038278
TITLE: Analysis of the prtP gene encoding porphypain, a cysteine proteinase of Porphyromonas gingivalis.
AUTHOR(S): Barkocy-Gallagher, Genevieve A.; Han, Naiming; Patti, Joseph M.; Whitlock, Joan; **Progulske-Fox, Ann**; Lantz, Marilyn S. [Reprint author]
CORPORATE SOURCE: 1121 W. Michigan St., Indianapolis, IN 46202, USA
SOURCE: Journal of Bacteriology, (1996) Vol. 178, No. 10, pp. 2734-2741.
CODEN: JOBAAY. ISSN: 0021-9193.
DOCUMENT TYPE: Article
LANGUAGE: English

ENTRY DATE: Entered STN: 11 Jul 1996
Last Updated on STN: 15 Aug 1996

AB The cloning and sequencing of the gene encoding porphypain, a cysteine proteinase previously isolated from detergent extracts of the Porphyromonas gingivalis W12 cell surface, are described. The prtP gene encoded a unique protein of 1,732 amino acids, including a putative signal sequence for protein secretion. The predicted molecular mass for the mature protein was 186 kDa, which was close to the observed molecular mass of 180 kDa. There was one copy of prtP in the genomes of seven P. gingivalis strains examined. The gene was located 5' to a region with a high degree of homology to the insertion element IS1126 in P. gingivalis W12. The PrtP protein had regions of high homology to HagA, a hemagglutinin of P. gingivalis, and to several purported proteinases of P. gingivalis that have Arg-X specificity. A detailed comparison of genes encoding the latter and cpgR suggested that rgp-1, prpR1, prtR, agp, cpgR, and possibly prtH were derived from identical genetic loci. Although an rgp-1-like locus was detected in seven P. gingivalis strains by Southern blot analyses, agp and cpgR were not detected, not even in the strains from which they were originally isolated. In addition, at least 20 copies of a repeat region common to PrtP, the Rgp-1-like proteins, and HagA were observed in each of the seven genomes examined. The repeat region hybridization patterns for strains W83 and W50 were very similar, and they were identical for strains 381 and ATCC 33277, providing further evidence that these strains are closely related genetically.

L5 ANSWER 28 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 16

ACCESSION NUMBER: 1996:219220 BIOSIS
DOCUMENT NUMBER: PREV199698775349
TITLE: Construction and preliminary characterization of three hemagglutinin mutants of Porphyromonas gingivalis.
AUTHOR(S): Lepine, Guylaine; Ellen, Richard P.; **Progulske-Fox, Ann** [Reprint author]
CORPORATE SOURCE: Dep. Oral Biol., P.O. Box 100424, JHMHSC, Gainesville, FL 32610-0424, USA
SOURCE: Infection and Immunity, (1996) Vol. 64, No. 4, pp. 1467-1472.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 8 May 1996
Last Updated on STN: 8 May 1996

AB Targeted insertional mutagenesis was used to construct hagA, hagB, and hagC hemagglutinin mutants of Porphyromonas gingivalis. pJRD215-derived plasmids containing tetA(Q)2 and portions of the targeted genes were conjugated into P. gingivalis. Interruption of the three loci was confirmed by Southern hybridization, sequencing, reverse transcription-PCR, and microliter hemagglutination assays. No significant differences in hydrophobicity or coadherence to Actinomyces viscosus were detected between the mutants and the wild-type strain.

L5 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:970026 CAPLUS
DOCUMENT NUMBER: 124:53079
TITLE: Expression and immunogenicity of a cloned Porphyromonas gingivalis hemagglutinin in Salmonella typhimurium
AUTHOR(S): Dusek, David M.; **Progulske-Fox, Ann**; Brown, Thomas A.
CORPORATE SOURCE: Department of Oral Biology, University of Florida, Gainesville, FL, USA
SOURCE: Advances in Experimental Medicine and Biology (1995),

371B, 1119-21
CODEN: AEMBAP; ISSN: 0065-2598
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The purpose here was to determine whether the P. gingivalis hagB hemagglutinin could be expressed in avirulent vaccine strains of S. typhimurium, to purify and characterize the gene product, and to evaluate the potential of oral immunization with these strains to induce secretory and humoral immune responses to the recombinant hemagglutinin in mice.

L5 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:406818 CAPLUS
DOCUMENT NUMBER: 121:6818
TITLE: Systemic and mucosal immune responses in mice orally immunized with avirulent Salmonella typhimurium expressing a cloned Porphyromonas gingivalis hemagglutinin
AUTHOR(S): Dusek, David M.; **Progulske-Fox, Ann**; Brown, Thomas A.
CORPORATE SOURCE: Dep. Oral Biol., Univ. Florida, Gainesville, FL, 32610, USA
SOURCE: Infection and Immunity (1994), 62(5), 1652-7
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Porphyromonas gingivalis produces a variety of virulence factors that may have a function in the periodontal disease process. Determination of the role of these various factors in pathogenesis and identification of a means for protecting the host from the destructive effects of this organism are areas of vigorous investigation. In this study, the authors demonstrate the potential of avirulent Salmonella typhimurium strains to stimulate a specific systemic and mucosal immune response to a cloned P. gingivalis hemagglutinin (HagB). An avirulent strain of S. typhimurium, χ4072, expressing the hagB gene of P. gingivalis 381 on the plasmid pDMD1 was intragastrically administered to BALB/c mice. These mice mounted a serum IgG and IgA primary response against the hagB gene product and a mucosal immune response as measured by evaluation of saliva. IgA antibodies were also detected in bile. These results demonstrate the feasibility of using attenuated S. typhimurium strains as carriers of P. gingivalis virulence factors for subsequent evaluation of the systemic and mucosal immune response against these antigens. This system will provide a means for evaluating the virulence factors of P. gingivalis for their suitability in the construction of potential vaccines.

L5 ANSWER 31 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1994:87296 BIOSIS
DOCUMENT NUMBER: PREV199497100296
TITLE: Molecular biology.
AUTHOR(S): Lepine, Guylaine [Reprint author]; **Progulske-Fox, Ann**
CORPORATE SOURCE: Dep. Oral Biology, Univ. Fla., Gainesville, FL, USA
SOURCE: Shah, H. N. [Editor]. (1993) pp. 293-319. Biology of the species Porphyromonas gingivalis.
Publisher: CRC Press, Inc., Boca Raton, Florida, USA; CRC Press, London, England, UK.
ISBN: 0-8493-6648-8.
DOCUMENT TYPE: Book
Book; (Book Chapter)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Mar 1994

Last Updated on STN: 5 Mar 1994

L5 ANSWER 32 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 17

ACCESSION NUMBER: 1993:475384 BIOSIS
DOCUMENT NUMBER: PREV199396108984
TITLE: Sequencing of a tet(Q) gene isolated from Bacteroides fragilis 1126.
AUTHOR(S): Lepine, Guylaine [Reprint author]; Lacroix, Jean-Michel; Walker, Clay B.; **Progulske-Fox, Ann**
CORPORATE SOURCE: Periodontal Dis. Res. Cent., Univ. Florida, Gainesville, Florida 32610, USA
SOURCE: Antimicrobial Agents and Chemotherapy, (1993) Vol. 37, No. 9, pp. 2037-2041.
CODEN: AMACCQ. ISSN: 0066-4804.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 22 Oct 1993
Last Updated on STN: 23 Oct 1993

AB Recently, Tet Q, a tetracycline resistance determinant that confers resistance by a ribosome protection mechanism, was described and added to the two previously described classes, Tet M and Tet O. The first representative of this class, tetA(Q)1, was isolated from Bacteroides thetaiotaomicron DOT. We report the sequencing of a gene isolated from B. fragilis 1126 which also confers tetracycline resistance. Because of its high degree of identity (97%) with the tetA(Q)1 gene, we defined it as tetA(Q)2. MIC studies revealed that tetA(Q)2 provides a low level of resistance to tetracycline when cloned into Escherichia coli. The extensive homology between tetA(Q)1 and tetA(Q)2 supports the idea of a recent horizontal transfer of tet(Q) genes among Bacteroides spp.

L5 ANSWER 33 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 18

ACCESSION NUMBER: 1993:319272 BIOSIS
DOCUMENT NUMBER: PREV199396027622
TITLE: Sequence divergence in two tandemly located pilin genes of Eikenella corrodens.
AUTHOR(S): Tonjum, Tone [Reprint author]; Weir, Susan; Bovre, Kjell; **Progulske-Fox, Anne**; Marrs, Carl F.
CORPORATE SOURCE: Kaptein W. Wilhelmsen og Frues Bakteriologiske Inst., Rikshospitalet, N-0027 Oslo 1, Norway
SOURCE: Infection and Immunity, (1993) Vol. 61, No. 5, pp. 1909-1916.
CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: Genbank-L12049
ENTRY DATE: Entered STN: 12 Jul 1993
Last Updated on STN: 31 Aug 1993

AB Eikenella corrodens normally inhabits the human respiratory and gastrointestinal tracts but is frequently the cause of abscesses at various sites. Using the N-terminal portion of the Moraxella nonliquefaciens pilin gene as a hybridization probe, we cloned two tandemly located pilin genes of E. corrodens 31745, ecpC and ecpD, and expressed the two pilin genes separately in Escherichia coli. A comparison of the predicted amino acid sequences of E. corrodens 31745 EcpC and EcpD revealed considerable divergence between the sequences of these two pilins and even less similarity to EcpA and EcpB of E. corrodens type strain ATCC 23834. EcpC from E. corrodens 31745 displayed high degrees of homology to the pilins of Neisseria gonorrhoeae and Pseudomonas aeruginosa. EcpD from E. corrodens 31745 showed the highest homologies with the pilin of one of the three P. aeruginosa classes, whereas EcpA and

EcpB of strain ATCC 23834 most closely resemble Moraxella bovis pilins. These findings raise interesting questions about potential genetic transfer between different bacterial species, as opposed to convergent evolution.

L5 ANSWER 34 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 19

ACCESSION NUMBER: 1993:208572 BIOSIS
DOCUMENT NUMBER: PREV199395109797
TITLE: Isolation and characterization of a cloned Porphyromonas gingivalis hemagglutinin from an avirulent strain of Salmonella typhimurium.
AUTHOR(S): Dusek, David M.; **Progulske-Fox, Ann**; Whitlock, Joan; Brown, Thomas A. [Reprint author]
CORPORATE SOURCE: Dep. Oral Biol. Periodontal Disease Research Center, Univ. Florida, P.O. Box 100424 JHMHC, Gainesville, FL 32610, USA
SOURCE: Infection and Immunity, (1993) Vol. 61, No. 3, pp. 940-946. CODEN: INFIBR. ISSN: 0019-9567.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Apr 1993
Last Updated on STN: 23 Apr 1993

AB Identification of surface macromolecules of Porphymomonas gingivalis that act as virulence factors in periodontal disease has important implications for studying host-parasite interactions as well as for potential vaccine development. The objective of this study was to determine whether a cloned, P. gingivalis hemagglutinin gene could be expressed in an intact form in an avirulent Salmonella typhimurium vaccine construct and to characterize the recombinant protein. The recombinant protein was purified from the vaccine strain, characterized, and tested for biological activity as a competitive inhibitor of hemagglutination. Cells of S. typhimurium SL3261/pST7 grown in Luria both were broken by sonic disruption and fractionated. The purified recombinant protein was found to inhibit hemagglutination of erythrocytes by whole P. gingivalis cells. The same purified protein was analyzed for its N-terminal amino acid sequence and amino acid composition are found to match that predicted from the nucleotide sequence of the cloned gene. These results indicate that a surface macromolecule of P. gingivalis can be expressed in an intact and biologically active form in a Salmonella carrier strain.

L5 ANSWER 35 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 20

ACCESSION NUMBER: 1993:251388 BIOSIS
DOCUMENT NUMBER: PREV199395130563
TITLE: Cloning and sequencing of two type 4 (N-methylphenylalanine) pilin genes from Eikenella corrodens.
AUTHOR(S): Rao, Venkatarama K.; **Progulske-Fox, Ann** [Reprint author]
CORPORATE SOURCE: Dep. Oral Biol. Periodontal Dis. Res. Cent., Univ. Flordia, Gainesville, FL 32610, USA
SOURCE: Journal of General Microbiology, (1993) Vol. 139, No. 3, pp. 651-660.
CODEN: JGMIAN. ISSN: 0022-1287.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: EMBL-Z12609
ENTRY DATE: Entered STN: 21 May 1993
Last Updated on STN: 21 May 1993

AB Eikenella corrodens is a Gram-negative microaerophilic rod which is gaining recognition as an important human pathogen. We have previously reported the cloning and expression in Escherichia coli of a 3.6 kb Eik. corrodens genomic DNA fragment which encodes a 31.5 kDa haemagglutinin.

Maxicell analysis revealed that this fragment also encodes two proteins of approximately 14 kDa. Nucleotide sequencing of the 2.2 kb fragment upstream of the haemagglutinin gene revealed two open reading frames with strong homology to genes encoding pilin subunit proteins of the type 4 or N-methylphenylalanine class. Two two pilin genes, ecpA and ecpB, are complete and are expressed E. coli. Southern analysis of ten additional Eik. corrodens strains revealed that all possess fragments homologous to ecpA. These data represent the first molecular evidence for pili in E. corrodens.

L5 ANSWER 36 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 21

ACCESSION NUMBER: 1993:251387 BIOSIS
DOCUMENT NUMBER: PREV199395130562
TITLE: Cloning, characterization and sequencing of two haemagglutinin genes from Eikenella corrodens.
AUTHOR(S): Rao, Venkatarama K.; Whitlock, Joan A.; **Progulske-Fox, Ann** [Reprint author]
CORPORATE SOURCE: Dep. Oral Biol. Periodontal Dis. Res. Cent., Univ. Florida, Gainesville, FL 32610, USA
SOURCE: Journal of General Microbiology, (1993) Vol. 139, No. 3, pp. 639-650.
CODEN: JGMIAN. ISSN: 0022-1287.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: EMBL-Z12610
ENTRY DATE: Entered STN: 21 May 1993
Last Updated on STN: 21 May 1993

AB Eikenella corrodens is emerging as an important human pathogen, in both extra-oral and periodontal infections. From a clone bank of Eikenella corrodens chromosomal DNA produced in Escherichia coli JM109, twenty-two clones expressed Eikenella antigens and of these, two expressed functional haemagglutinins. By virtue of different restriction maps and a lack of homology of Southern hybridization, the two cloned fragments encoding the two haemagglutinins have been shown to be distinct. Maxicell analysis revealed that clone 1, carrying plasmid pVKR201, produces three Eikenella proteins, one of 31.5 kDa and two of approximately 14 kDa each. Expression of each of the proteins appears to be under the control of an Eikenella promoter(s). Clone 2, carrying plasmid pVKR301, produces two proteins, one of 93 kDa and the second of 17 kDa. Expression of both of these proteins in E. coli requires the lac promoter in the vector. By preparing a series of subclones and testing each by maxicell analysis and for haemagglutination activity, a functional map of the insert of clone 1 was deduced and the 31.5 kDa polypeptide identified as the haemagglutinin. Using similar methods, the 17 kDa protein was found to be the haemagglutinin of clone 2. The nucleotide sequences of both haemagglutinin genes were determined and are presented. Computer analysis revealed no homology between the two haemagglutinins, and no homology to any previously sequenced proteins. These are the first genes of this genus to be cloned and sequenced.

L5 ANSWER 37 OF 40 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 22

ACCESSION NUMBER: 1994:60721 BIOSIS
DOCUMENT NUMBER: PREV199497073721
TITLE: Development of a genetic system for Eikenella corrodens: Transfer of plasmids pFM7329 and pLES2.
AUTHOR(S): Rao, Venkatarama K.; Whitlock, Joan A.; **Progulske-Fox, Ann**
CORPORATE SOURCE: Dep. Oral Biol. Periodontal Dis. Res. Cent., Univ. Florida, Gainesville, FL 32610-0424, USA
SOURCE: Plasmid, (1993) Vol. 30, No. 3, pp. 289-295.

CODEN: PLSMDX. ISSN: 0147-619X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Feb 1994
Last Updated on STN: 9 Feb 1994

AB Eikenella corrodens is a Gram-negative microaerophilic rod which is emerging as an important human pathogen. Elucidation of the mechanisms by which it causes disease require efficient methods for the transfer of DNA to E. corrodens. Plasmids pFM739 and pLES2 have been transferred by conjugation from Escherichia coli S 17-1 to E. corrodens ATCC 23834 at frequencies of 2.5 times 10-7 and 2.42 times 10-7, respectively. In addition, both plasmids could be transferred to four additional, clinical strains of E. corrodens at a similar frequency. The use of bacterio-phage T4 as a counterselecting agent is also described.

L5 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:525510 CAPLUS
DOCUMENT NUMBER: 117:125510
TITLE: Identification and sequence analysis of a methylase gene in Porphyromonas gingivalis
AUTHOR(S): Banas, Jeffrey A.; Ferretti, Joseph J.; **Progulske-Fox, Ann**
CORPORATE SOURCE: Health Sci. Cent., Univ. Oklahoma, Oklahoma City, OK, 73190, USA
SOURCE: Nucleic Acids Research (1991), 19(15), 4189-92
CODEN: NARHAD; ISSN: 0305-1048
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A gene from the periodontal organism Porphyromonas gingivalis was identified as encoding a DNA methylase. The gene, referred to a pgilM, was sequenced and found to contain a reading frame of 864 bp. The putative amino acid sequence of the encoded methylase was 288 amino acids, and shared 47% and 31% homol. with the Streptococcus pneumoniae DpnII and Escherichia coli Dam methylases, resp. The activity and specificity of the pgi methylase (M.PgiI) was confirmed by cloning the gene into a dam- strain of E. coli (JM110) and performing a restriction anal. on the isolated DNA with enzymes whose activities depended upon the methylation state of the DNA. The data indicated that M.PgiI, like DpnII and Dam, methylated the adenine residue within the sequence 5'-GATC-3'.

L5 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:16978 CAPLUS
DOCUMENT NUMBER: 112:16978
TITLE: Construction and characterization of isogenic mutants of Streptococcus mutans deficient in major surface protein antigen P1 (I/II)
AUTHOR(S): Lee, Song F.; **Progulske-Fox, Ann**; Erdos, Gregory W.; Piacentini, Delmar A.; Ayakawa, Gregg Y.; Crowley, Paula J.; Bleiweis, A. S.
CORPORATE SOURCE: Dep. Oral Biol., Univ. Florida, Gainesville, FL, 32610, USA
SOURCE: Infection and Immunity (1989), 57(11), 3306-13
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The gene (spaP) coding for the S. mutans major surface protein antigen P1 (or I/II) has been cloned into Escherichia coli. This gene was disrupted in vitro by insertional inactivation with pVA981, which carries a Tcr marker, and transformed into S. mutans NG8 (serotype c) by electroporation. Upon homologous recombination, the defective spaP was integrated into the genome as demonstrated by Southern hybridization anal. One Tcr mutant, designated 834, selected by its nonreactivity with anti-P1

monoclonal antibodies, lacked the cell surface fuzzy layer which was clearly present on the parent cells. Anal. of extracellular fluids, SDS-solubilized membranes, and cytoplasmic fractions by SDS-PAGE showed that 834 had protein profiles identical to the parent. However, a 185-kilodalton protein which reacts with anti-P1 antibodies was missing from the wall of 834, suggesting that spaP has been specifically inactivated. This mutant displayed levels of glucosyltransferase and fructosyltransferase activities similar to those of the parent. It was much less hydrophobic than the parent. S. mutans NG8 aggregated readily in the presence of clarified whole saliva or a high-mol.-weight salivary agglutinin. This strain also adhered to agglutinin-coated hydroxyapatite. The P1-neg. mutants, however, did not display these 2 properties, suggesting that P1 may play a role in saliva-mediated aggregation and adherence.

L5 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1988:523728 CAPLUS
DOCUMENT NUMBER: 109:123728
TITLE: Molecular cloning and expression of a Streptococcus mutans major surface protein antigen, P1 (I/II), in Escherichia coli
AUTHOR(S): Lee, Song F.; **Progulske-Fox, Ann**; Bleiweis, A. S.
CORPORATE SOURCE: Dep. Oral Biol., Univ. Florida, Gainesville, FL, 32610, USA
SOURCE: Infection and Immunity (1988), 56(8), 2114-19
CODEN: INFIBR; ISSN: 0019-9567
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Antigen P1, also called I/II, is one of the most abundant cell wall proteins of the mutans streptococci. It has been suggested that P1 may be involved in cell adherence to tooth surfaces and in sucrose-induced cell aggregation. As a first step toward fully understanding its biol. functions, the P1 gene, which has been designated spaP1, from S. mutans NG5 (serotype c) has been cloned into E. coli JM109 by a shotgun procedure with pUC18 as the vector. The recombinant strain expressing P1 carries a 5.2-kilobase DNA insert whose restriction map has been determined. This map is completely different from that of spaA of S. sobrinus (serotype g), even though P1 and SpaA are antigenically related. Southern hybridization revealed that DNA sequences closely homologous to spaP1 were present in serotypes c, e, and f, and similar sequences also existed in strains of serotypes a and d. The expression of the cloned spaP1 was found to be independent of the lac inducer and the orientation of the DNA insert, suggesting that it carries its own promoter. Western blotting (immunoblotting) revealed at least 20 bands reacting with a mixture of three anti-P1 monoclonal antibodies. The highest-mol.-weight reactive band was comparable in size to the parent P1 (185 kilodaltons [kDa]); however, the major reactive bands were smaller (.apprx.160 kDa). Expression of cloned P1 in E. coli LC137 (htpR lonR9) resulted in the increased prominence of the 185-kDa protein reactive band. Ouchterlony immunodiffusion showed partial identity between the parent and clone P1. In E. coli, P1 was detected primarily in the periplasm and extracellular fluid.

=> logoff hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	111.16	135.42

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-12.41	-13.14

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 11:09:32 ON 02 MAR 2005